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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/936,563  | 09/14/2001  | Gerard Mathis        | LOM 24              | 7143             |
| 23599   | 7590        | 11/27/2006           | EXAMINER            |                  |
| MILLEN, WHITE, ZELANO & BRANIGAN, P.C.<br>2200 CLARENDON BLVD.<br>SUITE 1400<br>ARLINGTON, VA 22201 |             |                      | TUNG, JOYCE         |                  |
|   |             | ART UNIT             |                     | PAPER NUMBER     |
|   |             |                      |                     | 1637             |

DATE MAILED: 11/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|------------------------------|------------------------|---------------------|
|                              | 09/936,563             | MATHIS ET AL.       |
| Examiner                     | Joyce Tung             | Art Unit            |
|                              |                        | 1637                |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 29 August 2006.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-9,11-17,19-29,31-40,47,48,50-54 and 56-62 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-9,11-17,19-29,31-40,47,48,50-54 and 56-62 is/are rejected.

7)  Claim(s) 1-9,11-17,19-29,31-40,47,48,50-54 and 56-62 is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO/SB/08)  
    Paper No(s)/Mail Date \_\_\_\_\_.  
  
4)  Interview Summary (PTO-413)  
    Paper No(s)/Mail Date \_\_\_\_\_.  
5)  Notice of Informal Patent Application  
6)  Other: \_\_\_\_\_.  
  

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## **DETAILED ACTION**

The applicant's response filed 8/29/06 to the Office action has been entered. Claims 1-9, 11-17, 19-29, 31-40, 47-48, 50-54, and 56-62 are pending

1. The rejection of claims 1-9, 13, 15, 17, 20-29, 33, 35-37, 39, 47-49, 53-54, 56 and 61-62 under 35 U.S.C. 102(b) as being anticipated by Sessler et al. (US 5,559,207, issued September 24, 1996) is withdrawn because of the amendment.
2. The rejection of claim 19 under 35 U.S.C. 103(a) as being unpatentable over Sessler et al. (US 5,559,207, issued September 24, 1996) as applied to claims 1-9, 13, 15, 17, 20-29, 33, 35-37, 39, 47-50, 53-55 and 61-62 above, and further in view of Zhao et al. (US 6,306,975, issued October 23, 2001) is withdrawn because of the amendment.
3. The rejection of claims 9, 29, 49, and 55 under 35 U.S.C. 112, second paragraph, is withdrawn because of the argument.

## **NEW GROUND OF REJECTION**

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 1-9, 11-17, 19-29, 31-40, 47-48, 50-54, and 56-62 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
  - a. Claims 1-9, 11-17, 19-29, 31-40, 47-48, 50-54, and 56-62 are vague and indefinite because of the phrase "optionally contain one or more hetero atoms" recited in claims 1,

and 20. It appears that in fig. 1 the hydrocarbon-based chains contain at least one hetero atoms. Clarification is required.

b. Claims 1-9, 11-17, 19-29, 31-40, 47-48, 50-54, and 56-62 are vague and indefinite because of the phrase "optionally interrupted". It is unclear what is the definition of the phrase.

c. Claims 51-52 are vague and indefinite because the claims depend from claim 10 which is canceled claim. It is suggested to correct the dependency of the claims.

d. Claims 57-58 are vague and indefinite because the claims depend from claim 30 which is canceled claim. It is suggested to correct the dependency of the claims.

***Allowable Subject Matter***

6. Claims 1-9, 11-17, 19-29, 31-40, 47-48, 50-54, and 56-62 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

7. The following is a statement of reasons for the indication of allowable subject matter: Concerning claims 1-9, 11-17, 19-29, 31-40, 47-48, 50-54, and 56-62, no prior art has been found teaching or suggesting the rare-earth metal cryptate of formula I recited in claim 1, which is covalently bonded to an oligonucleotide.

The closest prior art is the reference of Sessler et al., Sessler et al. disclose that the metal complex is covalently coupled with amine, thiol or hydroxyl linked to oligonucleotides (See column 8, lines 5-9 or Fig. 3A-3C). However, the metal complex does not have the chemical structure as recited in claim 1.

***Summary***

8. No claims are allowable.
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joyce Tung whose telephone number is (571) 272-0790. The examiner can normally be reached on Monday - Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 571 272-0782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joyce Tung *J.T.*  
November 21, 2006

*Kenneth R. Horlick*  
KENNETH R. HORLICK, PH.D  
PRIMARY EXAMINER

11/22/06